

CLAIM OR CLAIMS

1. A lift assembly system for cooperatively engaging a plurality of overhead support structures, comprising:

(a) a first lift assembly connected to the plurality of support structures, the first lift assembly including a first rotatable drum and a first motor; and

(b) a second lift assembly connected to the plurality of support structures, the second lift assembly including a second rotatable drum and a second motor, the second lift assembly abutting the first lift assembly along a longitudinal dimension of the first lift assembly and the second lift assembly.

2. The lift assembly of Claim 1, wherein the first lift assembly includes a first dedicated processor and the second lift assembly includes a second dedicated processor.

3. The lift assembly of Claim 2, further comprising a master processor spaced from the first lift assembly and the second lift assembly, the first dedicated processor and the second dedicated processor in communication with the master processor.

4. The lift assembly of Claim 1, further comprising a first overload/underload sensor in the first lift assembly and a second overload/underload sensor in the second lift assembly.

5. A method of installing a lift assembly system comprising:

(a) connecting a first lift assembly to a first and a second overhead support beam; and

(b) connecting a second lift assembly to the first and the second overhead support beams to abut the second lift assembly and the first lift assembly.

6. A lift assembly for cooperatively engaging spaced locations of an overhead structure, comprising:

- (a) an elongate enclosure;
- (b) a backbone connected to the enclosure;
- (c) a coupler connected to the backbone to selectively engage the overhead structures;
- (d) a drum located within the enclosure, the drum rotatably mounted to the backbone;
- (e) a motor connected to the drum for rotating the drum;
- (f) a first head block within the enclosure and connected to the backbone; and
- (g) a first loft block within the enclosure and connected to the backbone.

7. An improved lift system having at least a first and a second lift assembly, the first lift assembly having a first motor for moving a first load and the second lift assembly having a second motor for moving a second load, and second lift, the improvement comprising:

- (a) a first dedicated control processor in the first lift assembly, the first dedicated control processor configured to provide at least one of a lift rate, acceleration and position of the first load;
- (b) a second dedicated control processor in the second hoist assembly; and
- (c) a master processor remotely spaced from the first dedicated control processor and the second dedicated control processor and operably connected to the first dedicated control processor and the second control processor, the master processor configured to one of queue, group or sequence movement of the first load and the second load.

8. A lift assembly comprising:

- (a) a housing;

(b) a drum located within the housing and rotatably mounted relative to the housing;

(c) a loft block connected to the housing; and

(d) a load sensor operably located between the housing and the loft block for providing a signal corresponding to a load on the loft block.

9. A lift assembly, for selectively winding and unwinding a cable, the hoist assembly comprising:

(a) a frame;

(b) a drum rotatably mounted to the frame, the drum sized to retain a plurality of wraps of cable;

(c) a head block located to pace a length of cable about a portion of the had block; and

(d) a load sensor intermediate the head block and the frame to provide a signal corresponding to a load on the cable.

10. The lift assembly of Claim 9, wherein the load sensor is a load pin about which the head block can rotate.

11. The lift assembly of Claim 9, wherein the signal corresponds to an underload and an overload load on the cable.

12. A lift assembly for selectively winding and unwinding a cable, the lift assembly comprising:

(a) a frame;

(b) a drum rotatably mounted to the frame;

(c) a plurality of head blocks;

(d) a mount connected to the plurality of head blocks; and

(e) a load sensor operably intermediate the mount and the head blocks for providing a signal corresponding to a load on the mount.

13. A method of controlling a lift assembly, comprising:

(a) determining an initial loading one the lift assembly from a load sensor on the lift assembly; and

(b) limiting operation of the lift assembly to within a predetermined variance from the initial loading.

14. The method of Claim 13, further comprising providing an automatic actuation of the lift assembly, wherein automatic operation is precluded outside the predetermined variance from the initial loading.

15. A method of installing a lift assembly, comprising:

(a) locating a drum rotatable about an axis of rotation and translatable along the axis of rotation to dispose the axis of rotation horizontal; and

(b) passing a plurality of lines from the drum about corresponding loft blocks to define a cable path in a vertical direction.